## Abstract

A controller and method are provided for monitoring and controlling a
temperature of an integrated circuit to inhibit damage from a thermal problem. The
controller and method allow for individual temperature thresholds for each of one or
more temperature sensors. Digital filtering of values received from temperature sensors
is also provided. A variety of actions can be selected for execution upon a determination
of an over-temperature condition of the integrated circuit, including assert an overtemperature pin, assert an over-temperature bit in an error register of said controller,
assert an over-temperature bit in an error register of said microprocessor, issue an overtemperature interrupt to a service bus of said integrated circuit, cause a trap, slow an
operating frequency of said integrated circuit, stop said integrated circuit, and do
nothing.